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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,028	01/07/2002	Michael Burrows	9772-0336-999	4216

7590

06/08/2004

Gary S Williams
Pennis & Edmonds LLP
3300 Hillview Avenue
Palo Alto, CA 94304

EXAMINER

CHANNAVAJJALA, SRIRAMA T

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PLG

Office Action Summary	Application No	Applicant(s)	
	10/042,028	BURROWS, MICHAEL	
	Examiner	Art Unit	
	Srirama Channavajjala	2177	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings filed on 1/7/2002 are accepted for examination purpose.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1- 6,34-38, are rejected under 35 U.S.C. 102(e) as being anticipated by Judd et al., [hereafter Jude], US Patent No. 6360215.
3. As to Claim 1, 34, Judd teaches a system which including 'computer implemented method of indexing a database of documents, a subset of the documents containing nested fields, each nested field having an associated start meta word and end meta word, each meta word having an associated nesting level' [see Abstract];
'indexing each document containing nested fields' [fig 4A]; 'parsing the document to determine locations within the document of words' [col 16, line 29-33];

'meta words in the document and to determine the nesting level associated with each meta word' [col 9, line 1-14, fig 3], meta words corresponds to meta information such as the title of a documents, abstract and or like as detailed in col 9, line 7-10;

'generating an index' [col 7, line 41-50, col 8, line 22-29];

'word entries, each word entry identifying locations within the document of an identified word' [col 7, line 51-64, col 8, line 54-59];

'meta word entries, each meta word entry identifying locations within the document of an identified meta word and indicating the determined nesting level associated with the meta word' [col 9, line 1-11, line 40-54];

'generic meta word entries, each generic meta word entry identifying locations within the document of a class of meta words, including meta words at all nesting levels of the meta words found in the document' [col 10, line 14-27]; 'generic meta word entry including, for each identified location within the generic meta word entry, information identifying the nesting level associated with the meta word at the identified location' [col 10, line 38-48, fig 2B].

4. As to Claim 2, 12, 35, 44, the limitations of this claim have been noted in the rejection above. In addition, Judd disclosed 'each word entry, meta word entry, and generic meta word entry includes an object identifier and a location list' [col 9, line 40-44].

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5. As to Claim 3, 36, the limitations of this claim have been noted in the claim 1 rejection above. In addition, Judd disclosed 'each word entry, the object identifier includes one or more words, and the location list includes locations of the one or more words in the document' [col 12, line 1-12, line 39-41].

6. As to Claim 4, the limitations of this claim have been noted in the claim 1 rejection above. In addition, Judd disclosed 'each meta word entry, the object identifier includes a meta word and an indication of the nesting level associated with the meta word, and the location list includes locations of the meta word in the document' [col 2, line 40-46, 60-63, col 13, line 31-42].

7. As to Claim 5, 37, the limitations of this claim have been noted in the claim 1 rejection above. In addition, Judd disclosed 'for each generic meta word entry, the object identifier includes a class of meta words, including meta words at all nesting levels of the meta words found in the document, and the location list includes locations of each occurrence of each meta word in the class of meta words in the document' [col 2, line 40-46, 60-63, col 13, line 31-42], 'indication of the nesting level associated with each occurrence of each meta word in the class of meta words at each location' [col 13, line 44-54].

8. As to Claim 6, 38, the limitations of this claim have been noted in the claim 1 rejection above. In addition, Judd disclosed 'location list for each generic meta word

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entry, each location of each occurrence of each meta word in the class of meta words in the document is mathematically combined with the nesting level associated with that occurrence of that meta word at that location to encode both the location and the nesting level into a single value' [col 13, line 55-67, col 14, line 1-9], Judd specifically teaches computing difference between current document identifier value and previous document identifier value, further Judd also teaches index values that is associated with word data as detailed in fig 4D that corresponds to word data, index values are mathematically computed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7-33,39-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Judd et al., [hereafter Jude], US Patent No. 6360215 in view of Frank et al., [hereafter Frank], US Pub No. 2002/0078035.

10. As to Claim 7,39, Judd teaches a system which including 'receiving a query that specifies one or more words to be found within a specified field within a document' [fig 2, col 7, line 1-24];

'determining a start meta word and end meta word associated with the specified field' [col 7, line 51-64];

'searching an index to identify locations of the specified words and locations of a class of meta words that includes at least one of the start meta word and end meta word associated with the specified field'[fig 4A];

'meta words with respect to the identified locations of the specified words to select a meta word from the class of meta words ' [fig 4A-4B];

'determining the nesting level of the selected meta word' [col 4, line 1-6];

'identifying a complementary meta word corresponding to the selected meta word' [col 8, line 22-29];

'searching the index to determine a location for the identified complementary meta word' [col 8, line 22-29, line 55-63];

'determined location for the identified complementary meta word to generate a result that indicates whether the specified words are found within a first field associated with the selected meta word and the identified complementary meta word' [col 9, line 1-20].

It is however, noted that Judd does not specifically teach 'first spatial criteria, second spatial criteria'. On the other hand, Frank et al., disclosed 'first spatial criteria, second spatial criteria' [page 1, col 1, 0009-0010], first, second spatial criteria corresponds to indexing keywords by instances of spatial information content as detailed in page 1, col 2, 0010.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank et al., into retrieving documents based on information other than document content of Judd et al., because both Judd and Frank are directed to searching documents, more specifically both are directed to using search engines for searching documents based on query [see Judd: fig 1, Abstract; Frank: fig 1, Abstract] and both teach indexing [see Judd: fig 1, element 16; Frank: fig 4, element 46]. One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank's indexer, fig 4, element 46 into Judd's fig 1, more specifically modifying Judd's index element 16 with Frank's index, fig 4, element 46, because that would have allowed users of Judd to improve search engines efficiency by identifying, retrieving record identifiers each of which identifies a corresponding record or document which is associated therewith the text, keyword of the search criteria, based on spatial keyword document index as suggested by Frank et al., [see page 2, col 2, 0021.

11. As to Claim 8, 40, Judd disclosed 'first field is the specified field' [see fig 4A-4B].

12. As to Claim 9, 41, Judd disclosed 'determining the nesting level, identifying a complementary meta word [col 8, line 22-29], searching the index [fig 1, element 16]. On the other hand, Frank disclosed 'first spatial criteria, and second spatial criteria' [page 1, col 1, 0009-0010].

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13. As to Claim 10, 19, 22, 33,42,51, 54,65, Judd disclosed 'the specified words are found within the specified field' [see fig 4A], 'there is no instance of the specified words within the specified field' [col 7, line 51-57].

14. As to Claim 11, 14, 43, 46,Judd disclosed 'identifying comprises identifying a complementary meta word corresponding to the selected meta word and to its determined nesting level' [col 4, line 1-6, col 9, line 1-20].

15. As to Claim 13,45, Judd disclosed 'determining a closest location of the identified locations of the class of meta words with respect to an identified location of the specified words'[col 10, line 21-31]; 'selecting the meta word from the class of meta words corresponding to the determined closest location' [col 13, line 1-11].

16. As to Claim 15, 27, 47,59,Judd disclosed 'class of meta words further includes an object identifier and a location list, the object identifier including at least one of the start meta word and end meta word, and the location list including a location, and nesting level information at that location, for each occurrence of the at least one of the start meta word and end meta word' [fig 4A-4C,col 13, line 31-42].

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17. As to Claim 16, 20, 23, 48,52,55,Judd teaches a system which including 'searching a database of documents, a subset of the documents containing nested fields, each nested field having an associated start meta word and end meta word, each meta word having an associated nesting level' [see Abstract];

'receiving a query that specifies one or more words to be found within a first specified field that is found within a second specified field within a document'[col 3, line 40-45, col 7, line 51-64];

'determining a first start meta word and first end meta word associated with the first specified field, and a second start meta word and second end meta word associated with the second specified field' [col 7, line 51-64,col 8, line 6-9];

'locations of the specified words' [col 7, line 43-50];

'locations of a first class of meta words that includes at least one of the first start meta word and first end meta word associated with the first specified field' [fig 4A, col 7, line 1-9];

'locations of a second class of meta words that includes at least one of the second start meta word and second end meta word associated with the second specified field' [col 7, line 51-64, col 9, line 1-14];

"determined at least in part from the received query' [col 6, line 35-38]; 'to identified locations of the first and second classes of meta words and the identified locations of the specified words to select a first meta word from the first class of meta words, and a second meta word from the second class of meta words' [col 14, line 56-67, col 15, line 1-2];

'determining the nesting levels of the first and second selected meta words'

[col 4, line 1-6];

'identifying a first and second complementary meta word corresponding to the first and second selected meta word' [col 8, line 22-29];

'searching the index to determine a location for the first identified complementary meta word and a location for the second identified complementary meta word' [col 8, line 22-29, line 55-63];

'determined from the received query, to the identified locations of the specified words and to the determined locations for the first and second identified complementary meta words to generate a result that indicates whether the specified words are found within a first field, associated with the first selected meta word and the first identified complementary meta word, that is found within a second field, associated with the second selected meta word and the second identified complementary meta word' [col 6, line 35-38, col 14, line 56-67, col 15, line 1-2, col 4, line 1-6].

It is however, noted that Judd does not specifically teach 'first spatial criteria, second spatial criteria'. On the other hand, Frank et al., disclosed 'first spatial criteria, second spatial criteria' [page 1, col 1, 0009-0010], first, second spatial criteria corresponds to indexing keywords by instances of spatial information content as detailed in page 1, col 2, 0010.

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank et al., into retrieving documents based on information other than document content of Judd et al., because both Judd and Frank are directed to searching documents, more specifically both are directed to using search engines for searching documents based on query [see Judd: fig 1, Abstract; Frank:fig 1, Abstract] and both teach indexing [see Judd: fig 1, element 16; Frank:fig 4, element 46]. One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank's indexer, fig 4, element 46 into Judd's fig 1, more specifically modifying Judd's index element 16 with Frank's index, fig 4, element 46, because that would have allowed users of Judd to improve search engines efficiency by identifying, retrieving record identifiers each of which identifies a corresponding record or document which is associated therewith the text, keyword of the search criteria, based on spatial keyword document index as suggested by Frank et al.,[see page 2, col 2, 0021.

18. As to Claim 17, 49, Judd disclosed 'first field is the first specified field and the second field is the second specified field' [fig 2A-2D].

19. As to Claim 18, 21, 50, 53, Judd disclosed 'determining nesting levels' [col 4, line 1-6, 'identifying first and second complementary meta words' [col 8, line 22-29], 'searching the index' [fig 1]. On the other hand, Frank et al., disclosed 'first spatial criteria, second spatial criteria' [page 1, col 1, 0009-0010], first, second spatial criteria

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corresponds to indexing keywords by instances of spatial information content as detailed in page 1, col 2, 0010.

20. As to Claim 24, 56, Judd disclosed 'first and second classes of meta words include a specific meta word at all nesting levels of the specific meta word found in the database' [col 8, line 22-29, fig 5, col 15, line 61-62].

21. As to Claim 25-26, 57-58, Frank disclosed 'determining a closest location of the identified locations of the first class of meta words with respect to an identified location of the specified words' [page 1, col 2, 0015];

'selecting a first meta word from the first class of meta words corresponding to the determined closest location of the first class of meta words' [page 2, col 2, 0017];

'determining a closest location of the identified locations of the second class of meta words with respect to the first closest location of the identified locations of the first class of meta words' [page 10, col 1, 0151];

'selecting a second meta word from the second class of meta words corresponding to the determined closest location of the second class of meta words' [page 10, col 1, 0151-0152].

22. As to Claim 28, 60, both Judd and Frank disclosed 'first class of meta words and the second class of meta words constitute the same class of meta words' [Judd: col 9, line 7-9; Frank: page 11, col 1, 0172].

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23. As to Claim 29, Judd teaches a system which including 'receiving a query that specifies one or more words to be found within a specified field within a document' [fig 2, col 7, line 1-24];

'determining a start meta word and end meta word associated with the specified field' [col 7, line 51-64];

'searching the index to identify a first entry that has an object identifier associated with the specified words' [fig 4A,col 12, line 47-54];

'searching the index to identify a second entry that has an object identifier associated with meta word' [col 12, line 1-6, line 47-54];

'meta words with respect to the specified words, by comparing the location list of the second entry and the locationlist of the first entry ' [fig 4A-4B,col 12, line 60-66];

'determining the nesting level of the selected meta word' [col 4, line 1-6];

'identifying a complementary meta word corresponding to the selected meta word' [col 8, line 22-29];

'searching the index to determine a location for the identified complementary meta word' [col 8, line 22-29, line 55-63];

'identifying nesting level information' [col 11, line 52-61];

'identifying a complementary meta word, meta word having corresponding nesting level information as an identified nesting level information' [col 9, line 1-20, col 11, line 52-61];

'searching index to locate a third entry that has an object identifier associated with the complementary meta word' [fig 4A-4D,col 13, line 13-30];

'determining a complementary location from the location list of the third entry'
[fig 4A-4D];

'generating a result that indicates whether the specified words are within a first field, associated, meta word and the complementary meta word, by determining whether a location in the location list of the first entry, complementary location' [fig 4A-4D,col 13, line 31-42, col 14, line 26-38].

It is however, noted that Judd does not specifically teach 'bounding meta word, bounding location. On the other hand, Frank et al., disclosed 'bounding meta word, bounding location' [page 9, col 1, 0122-0123].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank et al., into retrieving documents based on information other than document content of Judd et al., because both Judd and Frank are directed to searching documents, more specifically both are directed to using search engines for searching documents based on query [see Judd: fig 1, Abstract; Frank: fig 1, Abstract] and both teach indexing [see Judd: fig 1, element 16; Frank:fig 4, element 46]. One of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Frank's indexer, fig 4, element 46 into Judd's fig 1, more specifically modifying Judd's index element 16 with Frank's index, fig 4, element 46, because that would have allowed users of Judd to use

metasearcher queries in the search engines to form and categorizing meta words improves search engines efficiency by identifying, retrieving bounding location list corresponding record or document which as associated therewith the text, keyword of the search criteria, based on spatial keyword document index as suggested by Frank et al.,[see page 2, col 2, 0021.

24. As to Claims 30 and 62, Judd disclosed 'complementary location of the complementary meta word' [fig 4A-4D], 'meta word, relative to the specified words, in the index of the database of documents' [col 8, line 22-29, fig 5, col 15, line 61-62]. On the other hand, Frank disclosed 'bounding location of the bounding meta word' [page 9, col 1, 0122-0123].

25. As to Claims 31 and 63, Judd disclosed 'first field is the specified field' [see fig 4A-4D].

26. As to Claims 32 and 64, Frank disclosed 'determining a bounding location comprises determining a bounding location of the bounding meta word' [page 9, col 1, 0122-0123], 'applying first spatial criteria to the location list of the second entry and the location list of the first entry, and further wherein the computer-implemented method includes repeating at least a plurality of the steps of determining a bounding location, identifying nesting level information' [page 1, col 1, 0009-0010].

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Conclusion

The prior art made of record

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|----|---------------|--------------|
| a. | US Patent No. | 6360215 |
| b. | US Patent No. | 2002/0078035 |

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

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|----|---------------|--------------|
| c. | US Patent No. | 5761497 |
| d. | US Patent No. | 6665666 |
| e. | US Patent No. | 5544049 |
| f. | US Patent No. | 6701307 |
| g. | US Patent No. | 6516337 |
| h. | US Patent No. | 6625596 |
| j. | US Patent No | 5848409 |
| j. | US Patent No | 5983216 |
| k. | US Patent No | 2002/0129062 |
| l. | US Patent No | 2002/0078152 |
| m. | US Patent No | 2003/0182274 |
| n. | WO01/67378 | |


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is (703) 308-8538. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time. The TC2100's Customer Service number is (703) 306-5631.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax phone numbers for the organization where the application or proceeding is assigned are as follows:

703/746-7238	(After Final Communication)
703/872-9306	(Offical Communications)
703/746-7240	(For Status inquiries, draft communication)

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

sc 
Patent Examiner.
June 2, 2004.